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The Threats to Our Mining Heritage
A Provincial Point of View

It may already be too late to preserve our national mining heritage. Perhaps, the best we can hope for is that federal agencies, state governments, or local communities will preserve what they feel is important. A few short years ago our nation's mining heritage dotted, if not covered, the landscape of the western states with head frames and waste piles providing a romantic image of mining for tourists and locals alike. Millions still enjoy the vista of surviving mining remnants on federal lands. However, this landscape will probably be gone in a decade. After that, our mining heritage will only be available by reading "ghost town" books or through visits to the relatively few well-preserved parks with mining features. The loss of our mining heritage in the wild will accelerate in the next few years, rather than diminish. Not because of the gradual effects of wind, weather, and vandals, but primarily due to well-intended government programs, professional mining-oriented artifact collectors, and new open pit mines.

Although there was an awakening of governmental interest in preserving the nation's mining heritage a decade ago, it did not lead to a National Mining Heritage Initiative. Archeologists and historians have developed guidelines and standards for the professional documentation of the mining landscape and the National Park Service has disseminated this information. However, implementation has been inconsistent in most states. Time is running out for anything approaching a comprehensive national program that will preserve enough of the significant aspects of our mining heritage. Future generations may only be able to experience and appreciate the nation's mining heritage through text and museum exhibits. Unless federal land management agencies and state governments quickly formulate goals for preservation, it will be too late to preserve anything but the memories.

Wrought iron fence being constructed around the Old Castillian Pit turquoise mine in Cerrillos Mining District, New Mexico. This mine may have been a major turquoise source for the Chaco Culture and was worked from about 1000 AD to 1915. Though the ideal closure for the mine landscape, few sites are patrolled well enough for fencing to be a secure safeguarding technique.

Federal programs are the major threat to the mining landscape, but vandalism, artifact collectors, and new mining ventures are secondary threats. During the past decade rather than funding a National Historic Mining Initiative, Congress and federal agencies have responded to public concerns regarding environmental pollution and safety. For the most part, public and governmental perception has characterized abandoned mines as environmental and safety hazards that need to be removed from the landscape. What a generation ago was considered a romantic part of our heritage is now commonly viewed as an imminent danger. As we have become a nation of litigants, pressure has increased to effectively remove from public lands anything that could result in a litigative action. All mine closure or safeguarding techniques are judged by how likely they are to fail or be breached by the public. As a result, fencing is usually considered unacceptable, except in overtly patrolled sites, as a means of safeguarding for abandoned historic mine sites. Even cable nets or steel grates are perceived as less desirable, than total mine closure through permanent backfilling.

Annually, millions of dollars are spent on safeguarding and/or remediating environmental problems associated with abandoned coal and hard rock mines in the United States. New federal and state initiatives appear regularly to correct safety and liability issues associated with abandoned mine sites. The official designations for some of these programs are misleading and sadly ironic such as, the Western Regional Mines Restoration Partnership, whose primary concern focuses upon restoration of the pre-mining environment, rather than preservation of our mining heritage. These programs reflect our nation's going full-circle from viewing old mines as technological heritage to viewing them as environmentally cor-

rupt landscapes. Little in the way of a rational discussion of the complex and diverse values of old mines has occurred; currently, we seem guided by a negatively-biased, environmentally-damaged national perspective of our once-important mining heritage.

If the federal government feels obliged to initiate national programs to correct the evils or mistakes of past actions on soil conservation, wildlife and other natural resources, it should also evaluate the effect of past and current federal programs on the nation's mining heritage. In the southwest, structures and equipment associated with 19th-century mines and mills survived fairly intact until the federal government's World War II scrap metal drives. In New Mexico, state prison inmates were used to cut up and cart off the Albemarle Mill for its metal scrap. The loss of equipment to the war effort resulted in a fundamental alteration of numerous historic mills and mines.

Environmental Protection Agency

In the last two decades, the Environmental Protection Agency has obliterated many mine and mill sites with minimal consideration for their historic values. Remediation actions by the Environmental Protection Agency were provided an expedited approach vis-à-vis the National Historic Preservation Act in order to ensure prompt response to the treatment and management of toxic sites. Although initially important, this approach makes less sense today. The complexity of many mining-related sites has resulted in decades-long debates regarding the correct method for cleanup efforts. Even when a decision to clean up a mining site has been reached, the agency frequently expends hundreds of thousand to millions of dollars and requires several months to years to study the toxicity of a site and to develop a remediation plan. In most cases, the professional study of the historic record and archeological recordation would not impede the Environmental Protection Agency's decision-making process, its response time, nor significantly raise costs associated with its final course of action. Although the Environmental Protection Agency—and its mirror-image state counterparts—are probably the clearest example of governmental programs which adversely impact the historic integrity of our mining-related resources, they are not alone.

National Historic Preservation Act

Most federally funded projects, and all projects on federal lands, are subject to the National Historic Preservation Act. This legislation requires an evaluation of the potential effects of the proposed undertaking on our cultural heritage by the respective state or tribal historic preservation officer. The preservation office's evaluation of mining sites as they are usually encountered in the Section 106 federal-state review process ensures some level of professional documentation, but this decision-making process rarely leads to long-term planning with respect to the preservation of important mining-related sites, particularly on a programmatic agency-wide or statewide basis. In some states, initial efforts have been taken toward development of a Mining Heritage Overview. To date, results have been mixed. Few of these planning initiatives are adequate enough to guide federal or state land management agencies in the development of a meaningful approach for evaluating and managing the mining sites under their care.

As there is little likelihood of a National Mining Heritage Initiative, what can be done? Perhaps the best that can be hoped for is that appropriate administrative officials in pertinent federal agencies will discover creative strategies to preserve what they consider are their management unit's best mining sites. It appears that in the next few years several hundred million dollars may be appropriated to irrevocably close and clean up abandoned mines in the United States. Thus, it seems likely that a mere decade from now, few historic mines will not have been affected by government-regulated actions. How well the closure of mines for safety and the associated treatment of environmental problems preserves the information and artifacts of our mining heritage may be dependent on land management agency decisions as well as the respective preservation office's knowledge of its state's mining history and its concomitant sensitivity to that heritage.

Abandoned Mine Land Programs

In 1977, Congress passed the Surface Mining Control and Reclamation Act (P.L. 95-87) which includes a tax on active coal mines. These funds are subsequently provided to states through annual grants by the Office of Surface Mining Reclamation and Enforcement. These monies are specifically aimed at reducing safety hazards and environmental problems resulting from two centuries of coal mining, but increasingly the funds are applied towards mitigation of hard-rock mines in the west. The Office of Surface Mining is staffed with a single archeologist, who possesses nationwide responsibilities; however, much of his time appears to be assigned to other duties. The Office of Surface Mining has promulgated little in the way of guidelines or manuals to assist state and tribal Abandoned Mine Land Bureaus concerning the professional documentation and/or conservation of our mining heritage. Levels of recordation and sensitivity to historic mining resources varies from state to state, as well as over time, depending on the respective preservation office. The Office of Surface Mining focuses on the administrative bottom line, that is, how many mine openings were

successfully closed and at what cost. In contrast, significant strides have been made in the last decade by state-level abandoned mine programs with respect to the recognition of the historic and cultural values of the nation's mining heritage.

Preservation Agencies

The foremost objective of most federal and state abandoned mine programs are to reduce public danger and correct environmental problems at the least cost possible. Dollars expended on recordation and preservation are often explicitly limited to satisfactorily accomplish any professional requirements stipulated by preservation offices or by federal agency staff for Section 106 clearance. If the decision-making process associated with environmental and similar public safety-oriented programs do not adequately record or preserve the nation's mining heritage, that failure is as much attributable to the respective preservation office as to the agency undertaking the proposed project.

Most federal agencies can only justify spending funds on mining-related cultural resource surveys for Section 106 compliance purposes to the extent, or lack thereof, required by a preservation office. Frequently, the professional standards established by a preservation office become the federal agencies' threshold for the quality of its mine-related investigations. Often, changes in preservation office staff occasions changes, for better or worse, in agency perspective and/or its standards. These circumstances suggest the need for a nationally accepted standard for mine-related cultural surveys. In particular, some preservation offices appear to place undue reliance upon site recordation under the premise that the site's mining history can be subsequently researched by future generations. However, this is only true to a degree. If preliminary cultural resource studies do not adequately research the archival record to the extent that most mine-related features can be identified by mine or claim name, there is little likelihood that site-specific history can be filled-in by future scholars. There also appears to exist a general absence of professional interest in the underground nature of historic mines. It should be a standard requirement that mine-related cultural resource surveys include copies of mine maps where they are available. Due to legitimate safety considerations, researchers rarely enter old mines and thus generally can not differentiate between a prospect and a small mine. Historic maps are essential in the evaluation of the function of various surface openings and other mine-related facilities. The general decline in the nation's mining industry may result in a similar decline in state mining bureaus which will lead to a loss of expertise and currently unpublished mine records.

Although historic mines are infrequently entered by archeologists or historians, there exist plenty of people who enter them to collect mineral specimens and mining artifacts. They are often well-equipped and seldom appear in the statistics of abandoned mine deaths. There are numerous mining-related artifact collectors as well as several journals which are devoted to these artifacts and their sale. Prices for mine-related material have increased dramatically in the past decade. Very few mines in the southwest have not been worked over by these people. These individuals argue that the artifacts that they are removing are not used or recognized; in reality, it is a significant loss of information concerning our nation's mining heritage. Unfortunately, some aggressive collectors use portable torches and gas saws to cut through metal gates on mine openings that were designed to safeguard the public. Such vandalism discourages the widespread use of this, otherwise functional, type of closure. Vandals likewise generate high maintenance costs for grate and cable closures which inhibits the widespread use of this type of low impact closure. Vandalism occasionally leads to backfilling mine openings with adjacent spoil piles, especially in nonpatrolled areas. Though the safest and cheapest method of safeguarding, backfilling has the greatest impact on the historic landscape. This approach also dramatically increases the humidity inside the mine resulting in the destruction of surviving mine-related artifacts. Only if a mine contains significant bat habitat or is judged for some other reason to warrant a metal closure is one used.

At best, there seems to be sporadic attempts to improve the overall quality of mining-related cultural resource reports. Most federal agencies and preservation offices assume that any competent historian or archeologist can undertake a comprehensive mine-related investigation; despite analysis that an interdisciplinary group is more appropriate (Baker and Huston 1990). The professional training and experience of many contract archeologists is usually centered on Native American cultural history and as such, generally have very little understanding of the technological complexity involved in a mine or mill operation. State historic preservation offices deserve both credit and/or blame for the overall quality of some cultural resource reports. Improving preservation office knowledge of and sensitivity for historic mining resources is an obtainable goal in this decade. Additional federal-state partnerships and creative approaches are needed to provide necessary guidance with respect to the criteria that should be used in evaluating and selecting which sites should be preserved. The only thing we can be sure of is

that future generations will fault us for what was not preserved.

Although the National Park Service, state governments, and local groups have preserved and interpreted individual mining sites, much remains to be done. Efforts to preserve America's mining heritage still seems to be confined to a local community or state perspective. Many individuals, organizations, and government entities are aggressively acting to preserve the nation's mining heritage, but a national framework doesn't exist. No overarching concept of mission, goals, or objectives exist as to what mining-related sites, artifacts, or archival records should be preserved for the best overall national result. The decade-old dream of a national initiative, if it occurs, will follow, rather than lead the provincial efforts at preservation. Each locality, state or federal land management agency is fending for itself. Relatively few mining sites will be affected by programs primarily aimed at preserving our mining heritage; most will be impacted by federal and state programs whose primary mission is reduction of public danger and potential liability. The degree to which heritage preservation efforts interact with these programs will determine the nation's success, or lack thereof, in preserving our heritage in the next decade.

In the past few decades, great strides have been realized with respect to the development of mining-oriented museums or parks established to preserve that heritage. Concerned citizens and cultural resource mangers continue to promote conservation efforts during this last decade of our mining heritage in the wild. The critical decisions on what should be preserved, and how it will be accomplished, will be made locally, or at best regionally, by land management agencies with some professional input from state historic preservation offices. The mining heritage sites that will be available to future generations will be largely confined to those chosen by land management agencies for preservation in the next few years. No one, but the ignorant, will have a clear conscience when federal and state environmental and safety programs are completed and the majority of our historic mines are permanently sealed. The best, and possibly the only hope, is for the rest of us to assist in any possible way the cultural resource managers in government land management agencies to more effectively initiate mining heritage conservation plans. It is their provincial efforts, at what ever level they feel they can impact, in their land management agencies that will probably determine what sites survive of our mining heritage for future generations in the west.

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